

# METHOD STATEMENT

## INSPECTION & TESTING

### *GENERAL*

Revision	Date	Prepared By	Approved By
Method Statement – ICCP Inspection			
		<p>BAC Corrosion Control Limited Stafford Park 11 Telford TF3 3AY Tel: 01952 290321 Fax: 01952 290325 Email: <a href="mailto:engineering@bacgroup.com">engineering@bacgroup.com</a></p>	

# C O N T E N T S

## 1 INTRODUCTION

## 2 REFERENCE DOCUMENTS

- 2.1 SPECIFICATIONS
- 2.2 DRAWINGS

## 3 RESPONSIBLE PERSONS

## 4 TEST EQUIPMENT

- 4.1 CALIBRATION
- 4.2 EQUIPMENT LIST

## 5 TEST PROCEDURES

- 5.1 TEST POINT PROCEDURES
  - 5.1.1 Pipe to Soil Potentials
  - 5.1.2 Pipe to Soil Potential - "Off Potential"
- 5.2 TRANSFORMER-RECTIFIER PROCEDURES
  - 5.2.1 D.C. output measurements
  - 5.2.2 D.C. output settings
  - 5.2.3 Reference potentials
- 5.3 INSULATING FLANGE TESTING
- 5.4 ADDITIONAL TESTS

## 6 HEALTH AND SAFETY

- 6.1 GENERAL
- 6.2 SAFETY HANDBOOK
- 6.3 RISK ASSESSMENTS
  - 6.3.1 General hazards
  - 6.3.2 Specific hazards applicable to Inspection Procedures
- 6.4 CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (C.O.S.H.H.)

## **1 INTRODUCTION**

This Method Statement covers standard cathodic protection inspection and testing procedures.

## **2 REFERENCE DOCUMENTS**

### **2.1 Specifications**

British Standard 7361: Part 1: 1991 The Code of Practice for Cathodic Protection for Land and Marine Applications

### **2.2 Drawings**

As required.

## **3 RESPONSIBLE PERSONS**

Activities associated with the inspection and testing of cathodic protection system shall be carried out by suitably experienced and trained personnel.

Service Technicians will respond to the appropriate Project Engineer.

Project Engineers report to the Manager, Engineering Services

## **4 TEST EQUIPMENT**

### **4.1 Calibration**

Test meters utilised during commissioning of the Cathodic Protection system shall be calibrated to National or International measurement standards

### **4.2 Equipment List**

Multimeter with test leads

Copper/Copper Sulphate portable reference electrode

I/F Tester

Clamp Meter

Hand tools

Current interrupter

## 5 TEST PROCEDURES

### 5.1 Test point procedures

- i) Ensure that all relevant site conditions and working practices are observed. If necessary obtain a work permit as required by the site. Do not open any enclosure unless it is safe to do so.
- ii) Observe and note the general condition of the test point, including any fittings.
- iii) Observe and note any information shown on face plate or test point cover.
- iv) If applicable, remove the faceplate or cover and observe internal condition of test point.
- v) Carry out relevant tests as detailed in Pipeline Schedule if applicable
- vi) When tests are complete, smear petroleum jelly over exposed threads and cable terminations.
- vii) Replace cover.

#### 5.1.1 Pipe to Soil Potentials

- i) Measure and record the pipe/soil potential with reference to the portable copper/copper sulphate electrode.

#### 5.1.2 Pipe to Soil Potential - "Off Potential"

- i) Insert current interrupter into transformer rectifier.
- ii) Measure and record the pipe/soil potential with reference to the portable copper/copper sulphate electrode.

### 5.2 Transformer-Rectifier Procedures

- i) Ensure that all relevant site conditions and working practices are observed. If necessary obtain a work permit as required by the site. Do not open any enclosure unless it is safe to do so.
- ii) Observe and note any information shown on identification plate.
- iii) Observe and note the general condition of the enclosure, including hinges and fittings.
- iv) Open cabinet.
- v) Carry out transformer rectifier measurements as detailed in Pipeline Schedule.
- vi) Observe condition of any fuses or circuit breakers.
- vii) Observe condition of internal wiring.
- viii) Apply oil to hinges and fittings.
- ix) Close and lock door.

#### 5.2.1 D.C. output measurements

- i) Open TR cabinet.
- ii) Observe and note readings on volts and amps panel meters.

#### 5.2.2 D.C. output settings

- i) Open TR cabinet
- ii) Observe and note position of control switches or control dial as applicable

### **5.2.3 Reference potentials**

(If a remote reference electrode is terminated in the cabinet)

- i) Open TR Cabinet
- ii) Observe and note readings on Reference electrode meter, if fitted
- iii) If terminals are provided, connect portable multimeter, measure and record the structure/electrolyte potential.

### **5.3 *Insulating Flange Testing***

- i) Locate I/F and test with I/F tester.

### **5.4 *Additional Tests***

- i) Review client drawings and the cathodic protection installation.
- ii) Complete additional testing as appropriate.

## 6 HEALTH AND SAFETY

### 6.1 General

It is the intention of BAC that all test and inspection procedures are carried out in a safe manner in accordance with the Health and Safety At Work Act and any other relevant legislation.

If required by the Client, BAC personnel will attend any Site Safety Induction Courses before carrying out work on site.

### 6.2 Safety Handbook

It is the responsibility of all BAC personnel to be familiar with the latest revision of the Company's Safety Handbook. The Safety Handbook details the responsibility of the Company and the individual regarding Safety Regulations.

### 6.3 Risk Assessments

#### 6.3.1 General hazards

- i) *Site safety.*  
There can be assorted risks associated with working on any site and site regulations as laid down by the site owner/operator should be observed.
- ii) *PPE*  
The minimum personal protective equipment is as follows:
  - Approved safety helmet
  - Approved ear defenders/earplugs
  - Safety footwear
  - Eye protection
  - Gloves
  - OverallsAnd any other equipment required by the site operator or deemed necessary by the task

#### 6.3.2 Specific hazards applicable to Inspection Procedures

- i) *Electric shock.*  
When transformer rectifier cabinet is open, ensure that no live parts are exposed during testing procedures.
- ii) *Risk of falling.*  
If a transformer rectifier is installed in a location that requires the use of a ladder, care should be exercised in the use of that ladder. The ladder should be used on firm ground, and secured to prevent slipping.
- iii) *Road traffic.*  
If any test points are located near a roadway, there is a risk of injury caused by moving vehicles. All personnel should wear suitable high visibility clothing and exercise increased care.
- iv) *Working in confined spaces.*  
Personnel should not enter confined spaces without the authority and direct

supervision of qualified personnel. Site owners/operators should have their own procedures for entry into confined spaces and these should always be followed. Always ensure the correct permit has been issued and that all correct procedures have been carried out before continuing.

**Under no circumstances should a person working alone enter a confined space. There must always be someone outside the confined space to raise the alarm in case of emergency.**

#### ***6.4 Control of Substances Hazardous to Health (C.O.S.H.H.)***

Where applicable, substances hazardous to health shall be listed and itemised in the form of a register.

Health and Safety Data Sheets for all hazardous substances shall be kept in a file for reference.

Site personnel shall be issued with copies of Health and Safety Data Sheets relevant to their work activities.